Question 1 Which of the following diseases has been recognized since antiquity?

(c) Guinea worm disease, or dracunculiasis, is mentioned in biblical texts. Although it is unfamiliar to Americans, it is not uncommon on the Arabian peninsula and sub-Saharan Africa. The disease is caused by a parasitic roundworm that is ingested in a larval form. The larvae migrate through the tissues where they mate and grow. A year after they are ingested, the mature female migrates to subcutaneous regions, typically in the legs and feet. The worm may reach a yard in length. Its migrations cause great pain and inflammation, a burning itch, and subcutaneous ulcers. One form of treatment is to wet the skin to stimu late the worm to stick its head out and catch the head in a split stick. The worm is then slowly extracted, over the course of several weeks, by rolling it around the stick (if it is pulled too quickly, the worm will break in two, causing greater problems). This treatment may be the origin of the caduceus symbol that represents the medical profession. Students will learn as they complete this activity that Legionnaire disease and Ebola fever were first recognized as distinct diseases in 1976, and AIDS first came to worldwide attention in the early 1980s.

Question 2 In the 1700s and 1800s, a terrible, wasting disease killed thousands of European and American city dwellers. What disease was this?

(d) Tuberculosis (TB) killed 1 of every 4 Americans in the 1800s. The disease is still a leading killer globally, although it had decreased dramatically in the United States until the AIDS epidemic. The immune system of most people who contract the bacterium that causes tuberculosis successfully prevents its growth and active disease never develops. Any condition that compromises the immune system, such as HIV infection, will allow the bacteria to grow, resulting in active tuberculosis.

Question 3 What infectious disease causing severe fever and chills plagued settlers in the Southern and Midwestern United States during the 1800s and early 1900s?

(c) Malaria is thought to have been introduced to the United States from Europe and Africa in the 16th and 17th centuries. The incidence of malaria in this country probably peaked around 1875. In a review of U.S. malaria outbreaks, J. Zucker estimated that more than 600,000 cases occurred in 1914. Improved socioeconomic conditions, mos quito control measures, and availability of effective drugs later led to the virtual elimination of this disease in the United States, although localized outbreaks are still occasionally reported.

Question 4 Most deaths among U.S. servicemen in 1918 were due to what cause?

(b) Flu caused most of these deaths. The global influenza epidemic of 1918 is estimated to have killed 30 million people. The movement of troops during World War I, accompanied by crowding, poor nutrition, and generally poor living conditions probably contributed to the rapid spread of the flu around the world. The 1918 flu was particularly virulent and, unlike typical flu epidemics, caused death more frequently among young adults than among children and the elderly.

Question 5 In 1994, a terrible disease nearly killed an 18-year-old high school student in California. Which of the following diseases was it?

(d) Tuberculosis (TB). The student contracted TB from a classmate at her high school, who had an active, misdiagnosed case of the disease. An additional 11 students at her school developed active cases of TB, and several hundred more had positive skin tests indicating that they had been exposed.

Question 6 According to the World Health Organization, which of the following diseases caused more deaths in 1998 than the others?

(d) Pneumonia was the third highest killer in 1998, behind heart disease and cerebrovascular disease.